

FIG.1

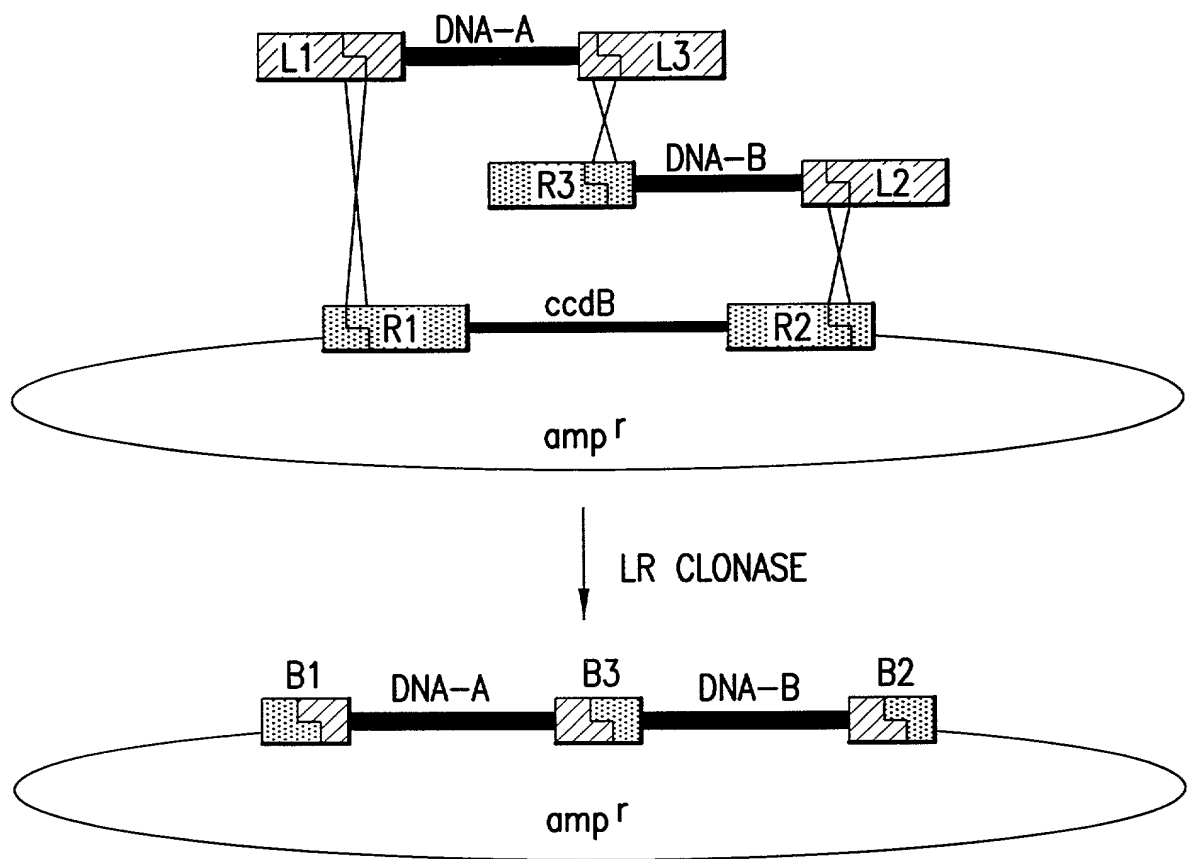


FIG.2

FIG. 3

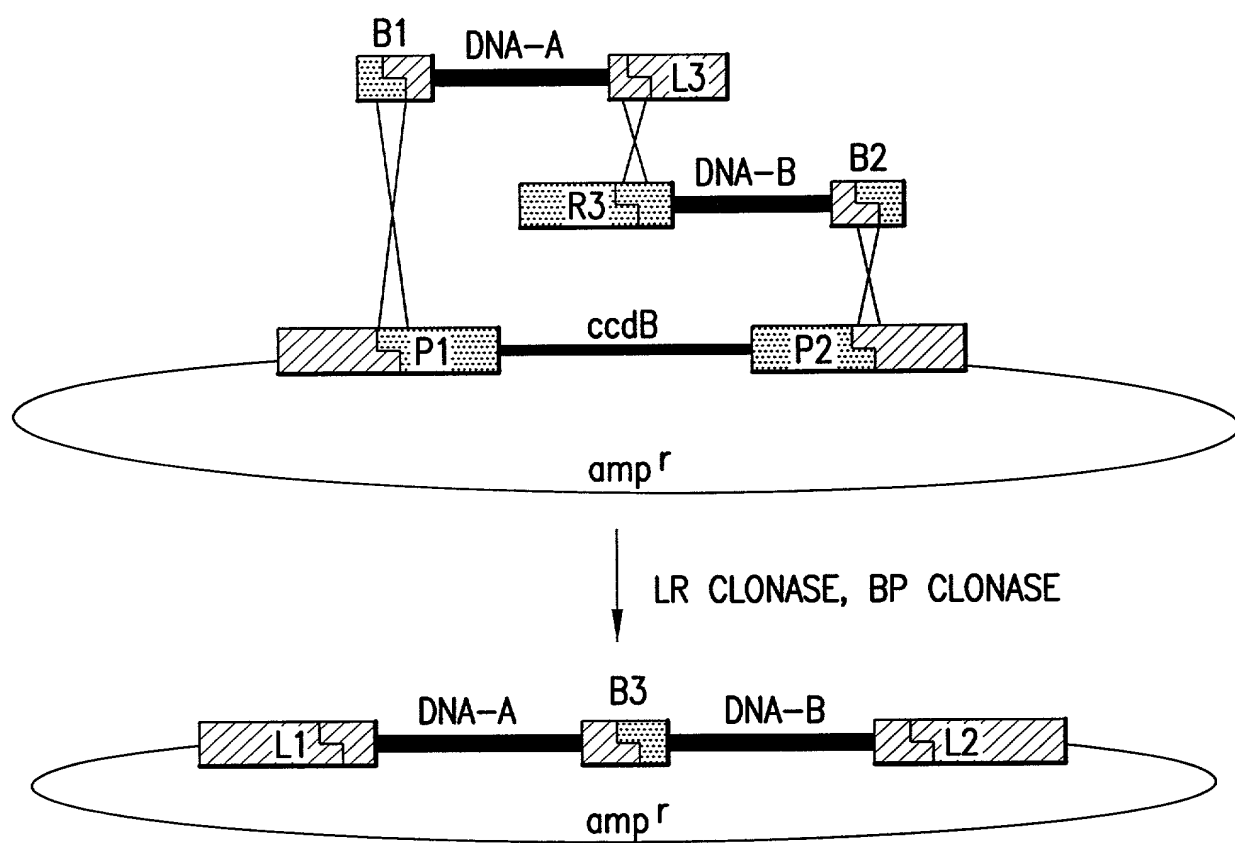


FIG.3

FIG. 4

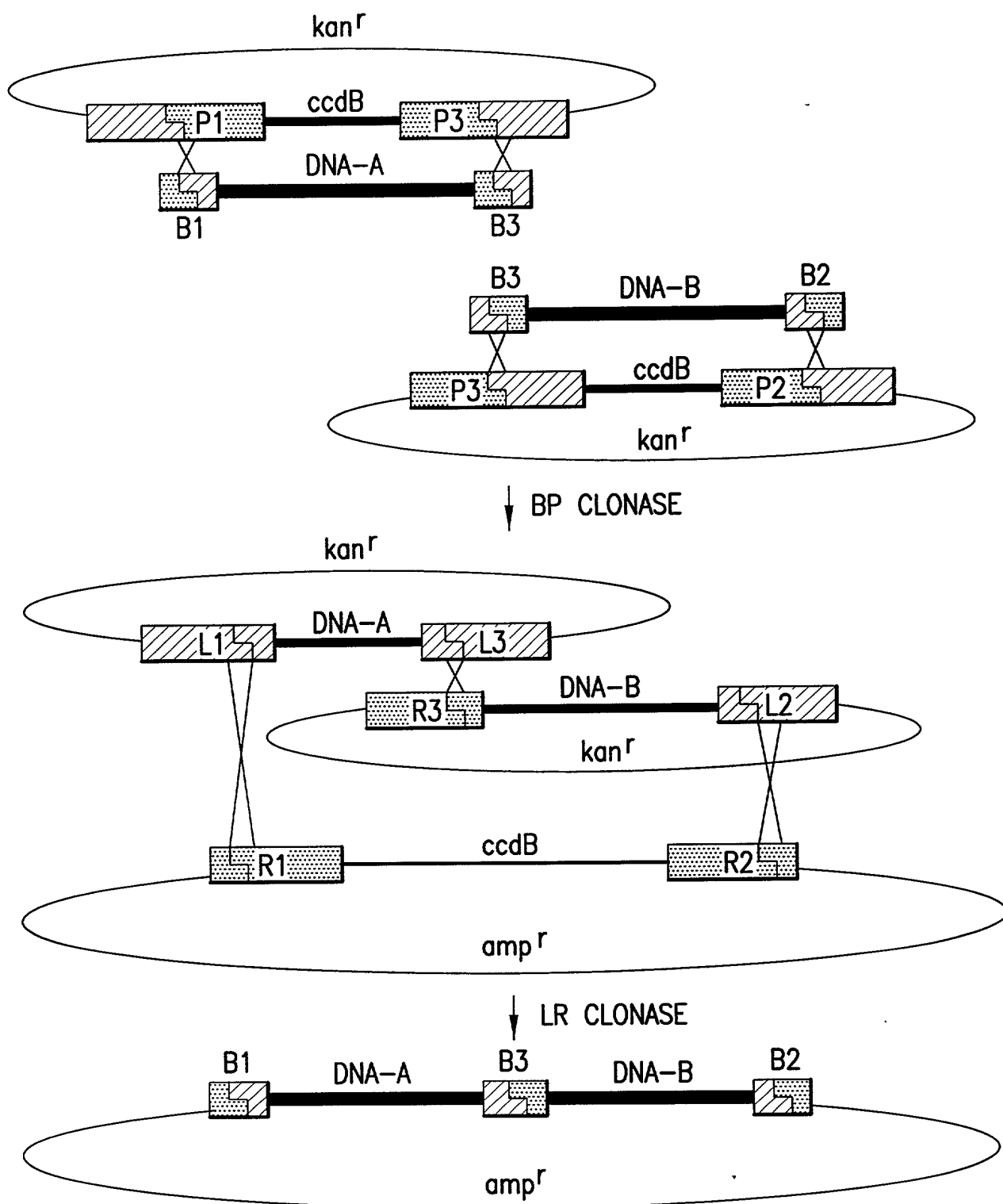


FIG.4

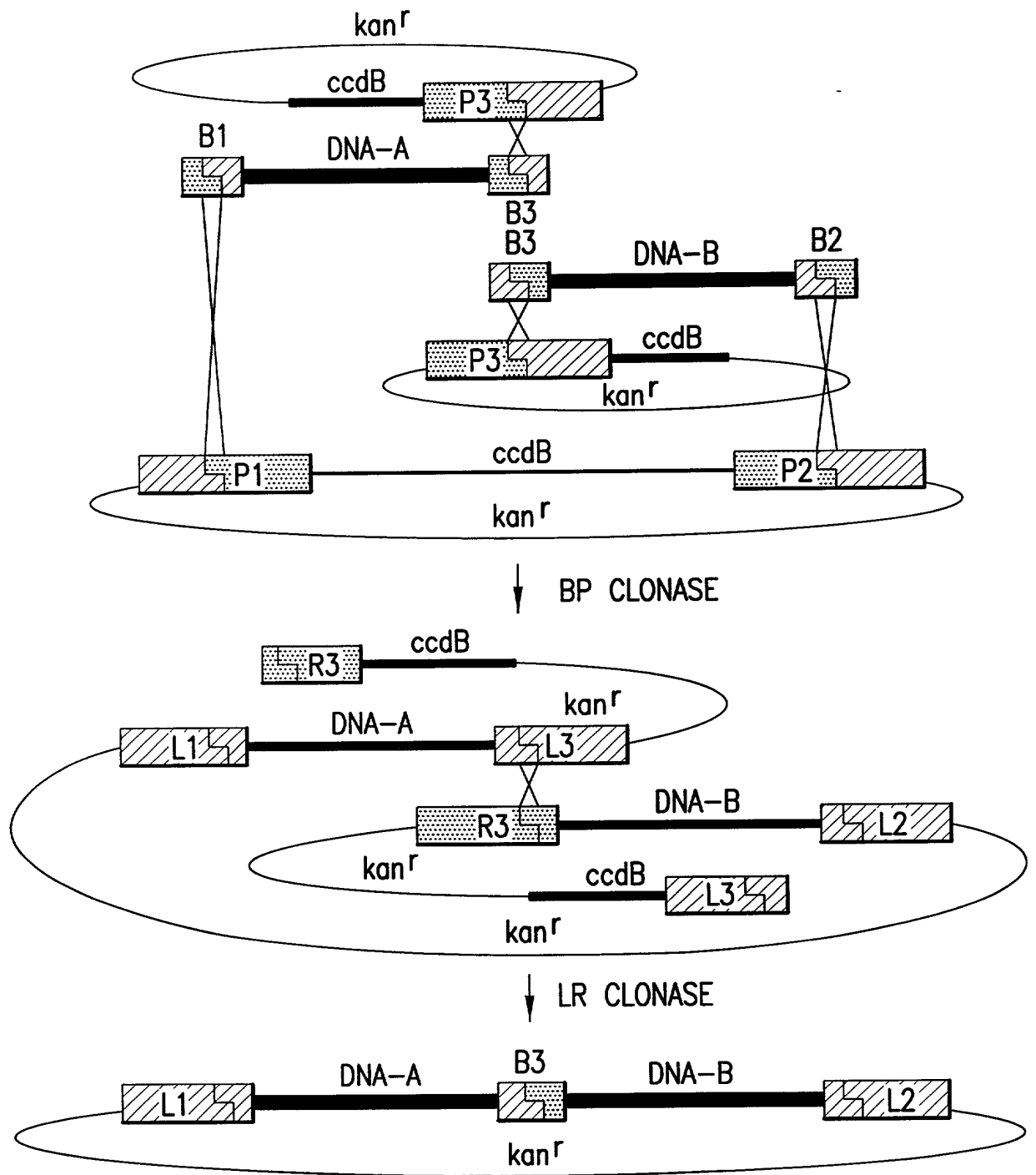


FIG.5

FIG. 6

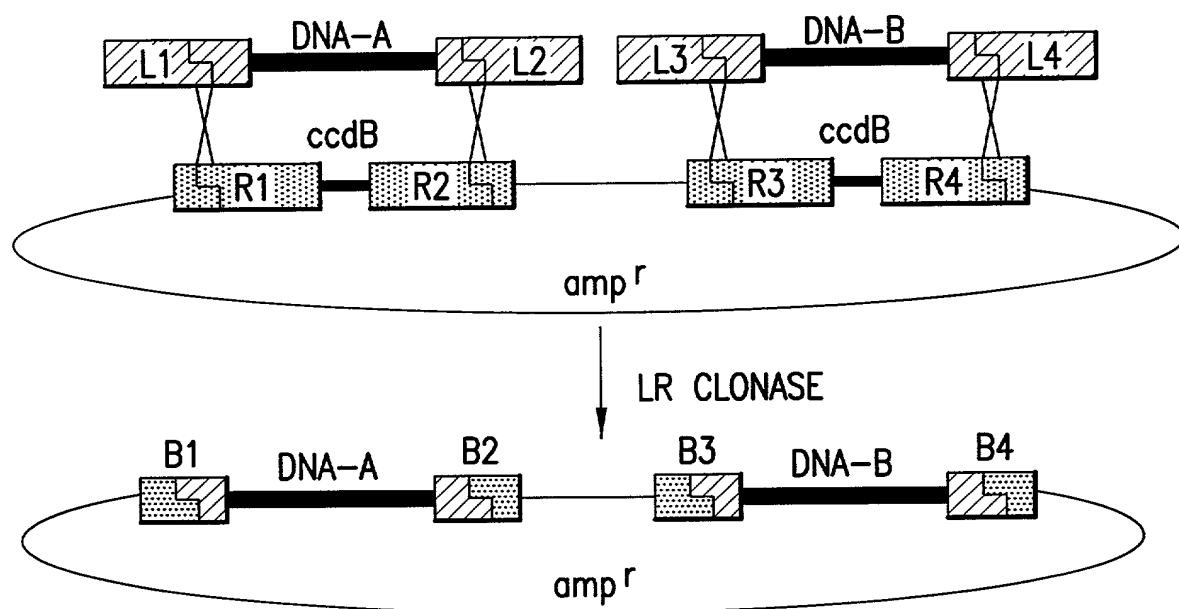


FIG.6

FIG. 7

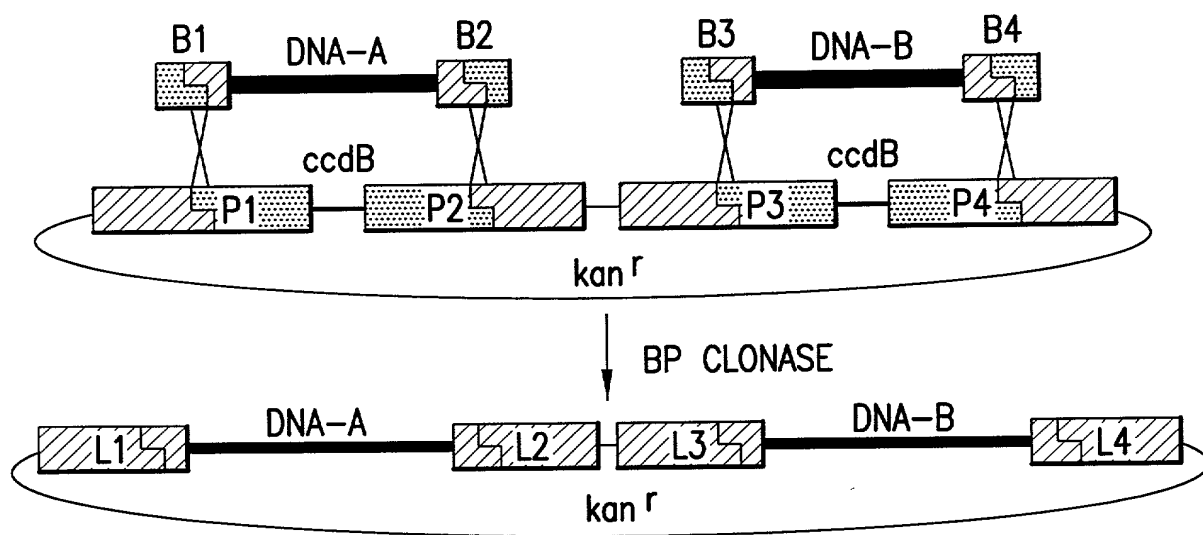


FIG.7

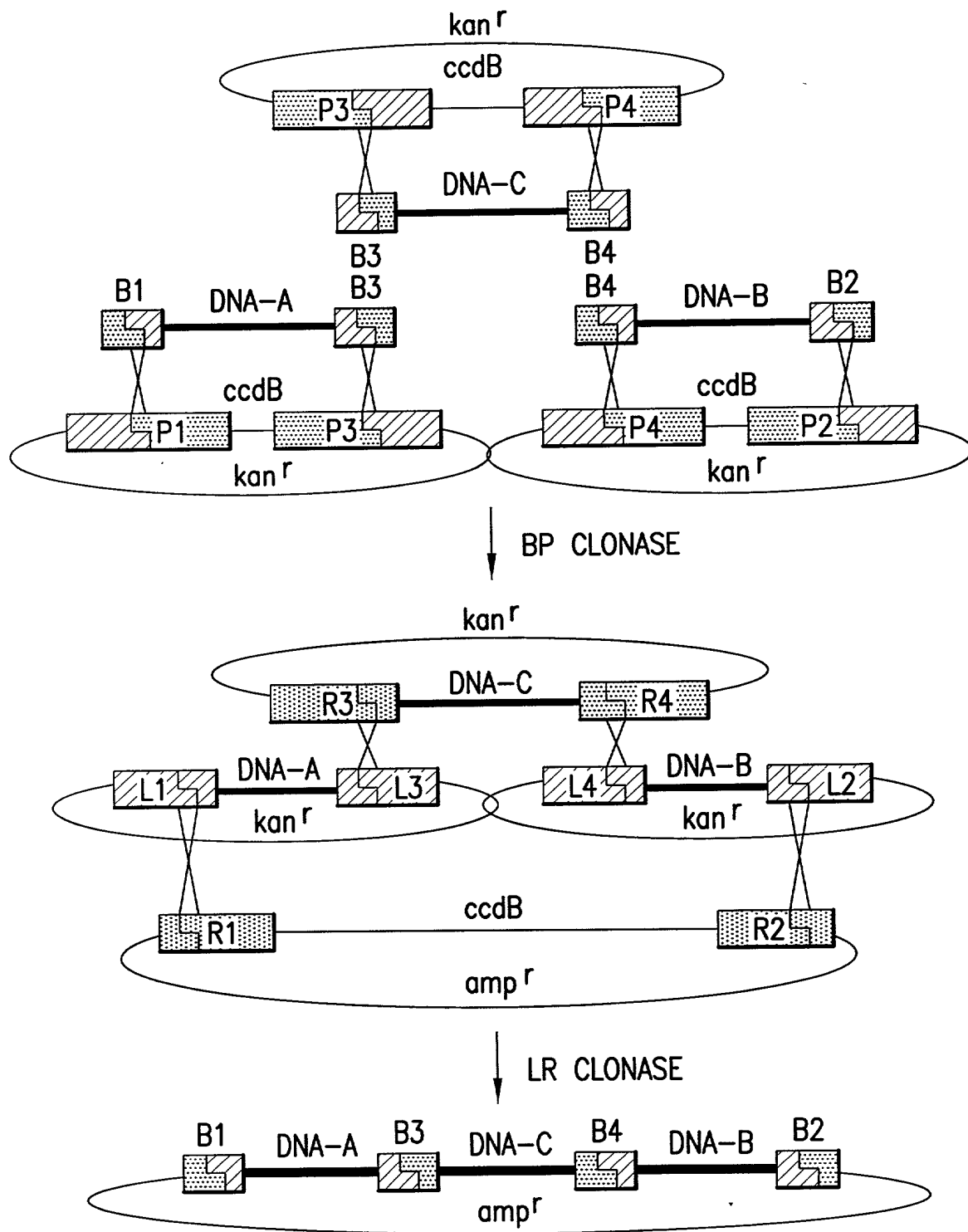


FIG.8



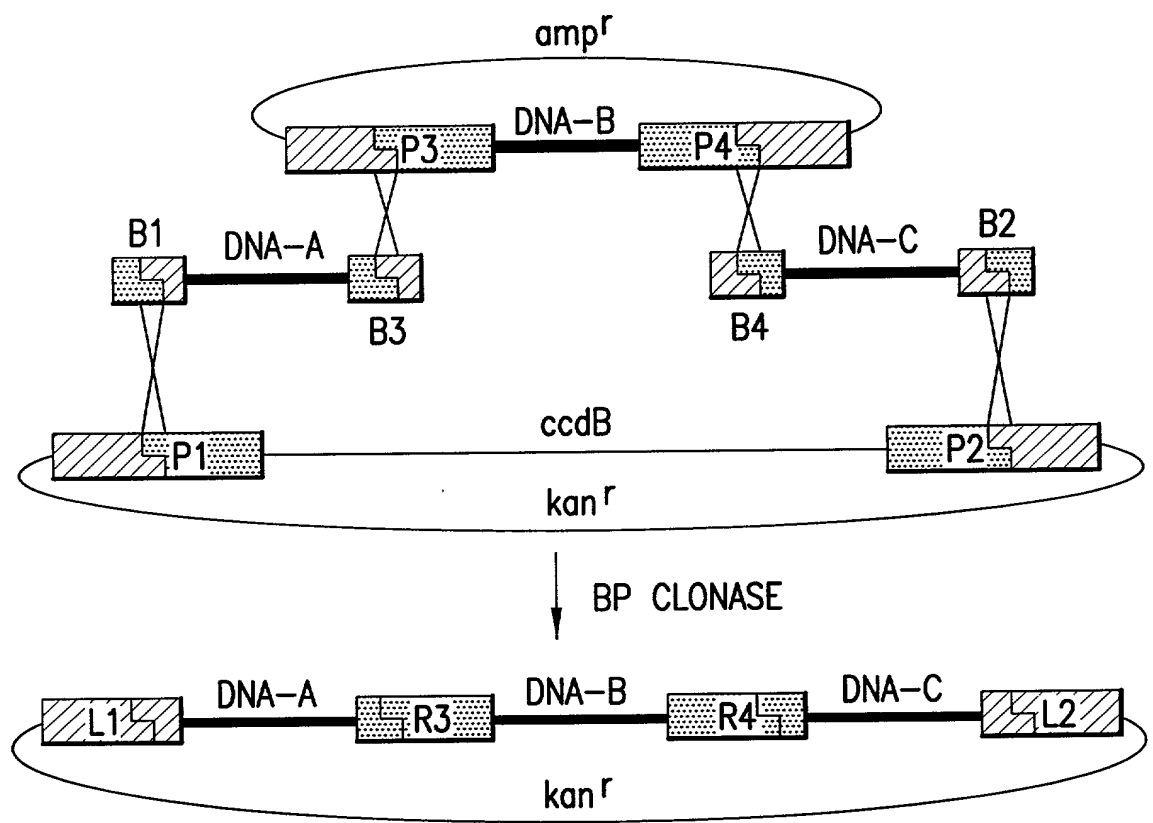


FIG.9

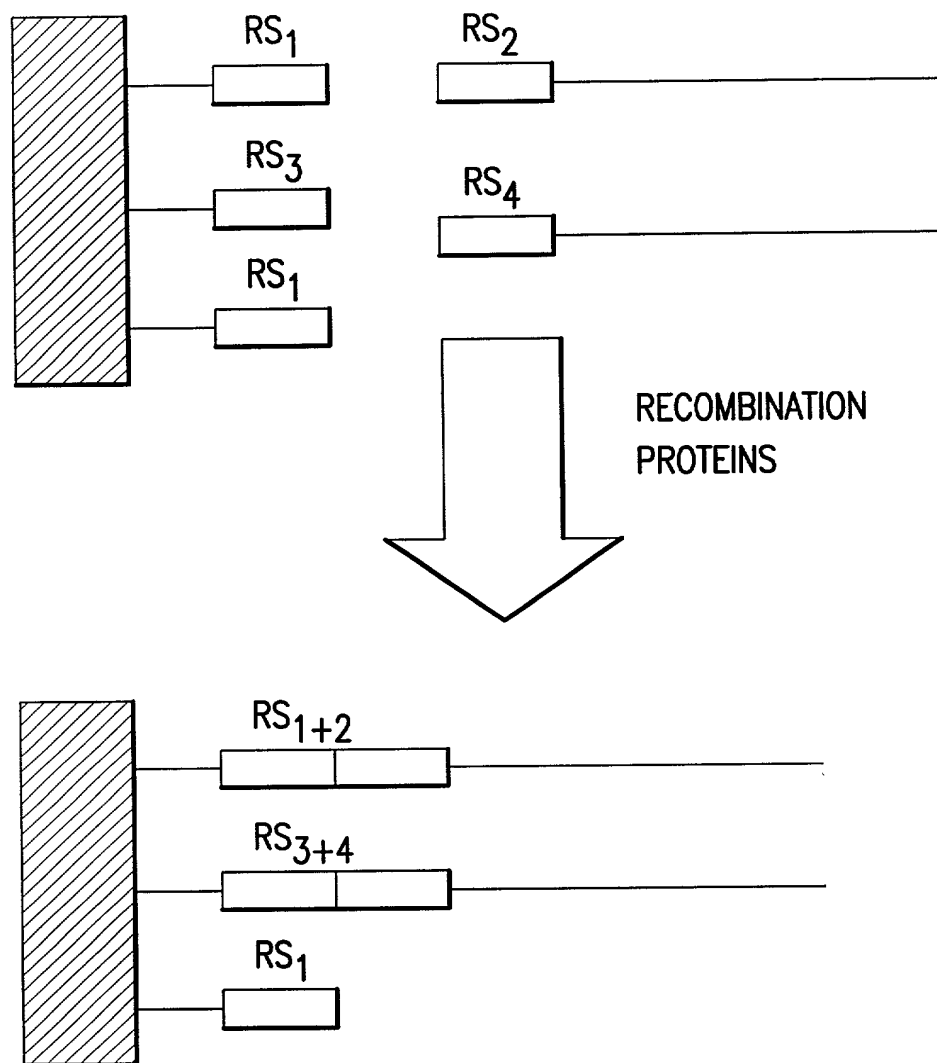


FIG.10

FIG. 11

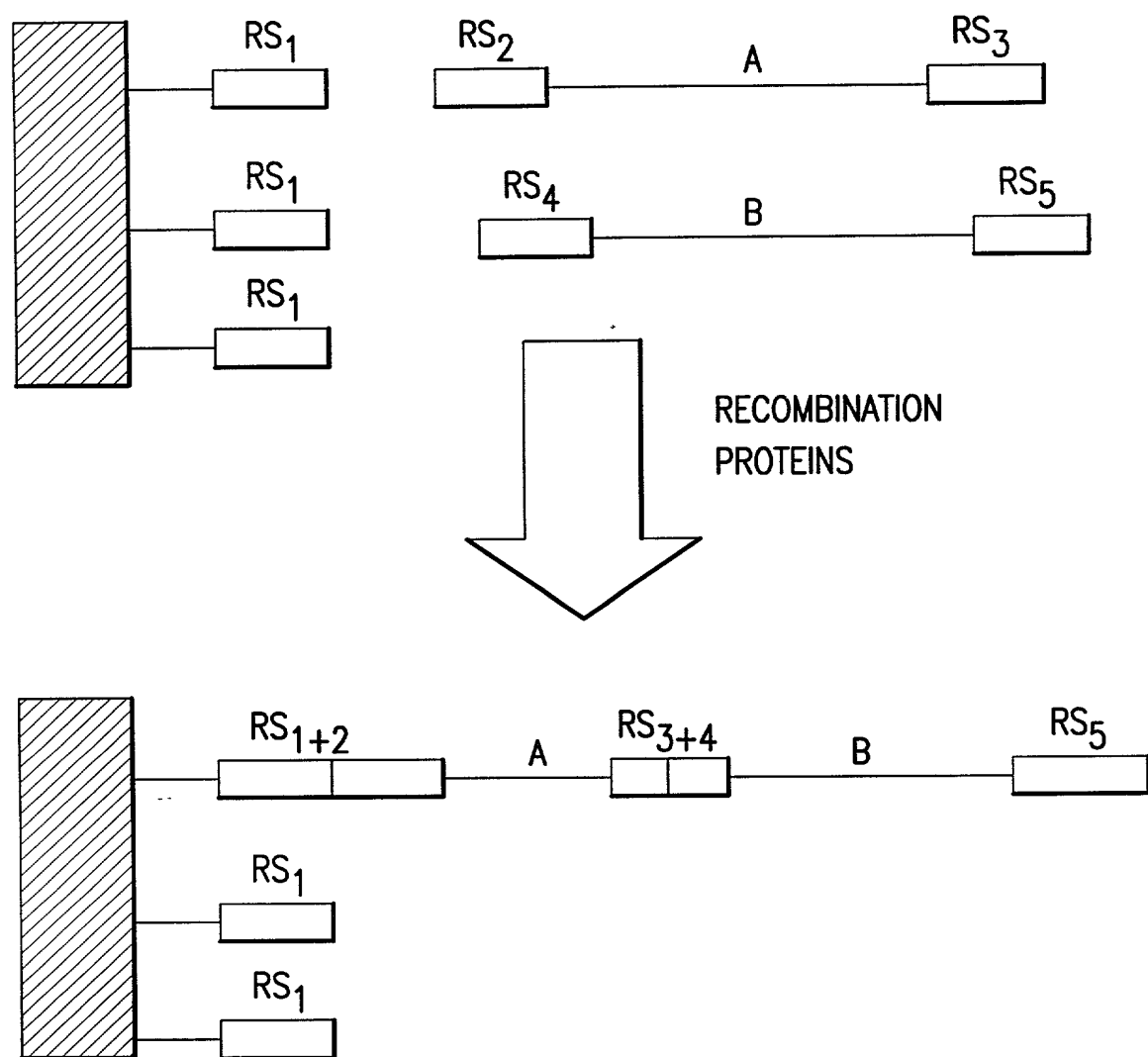


FIG.11

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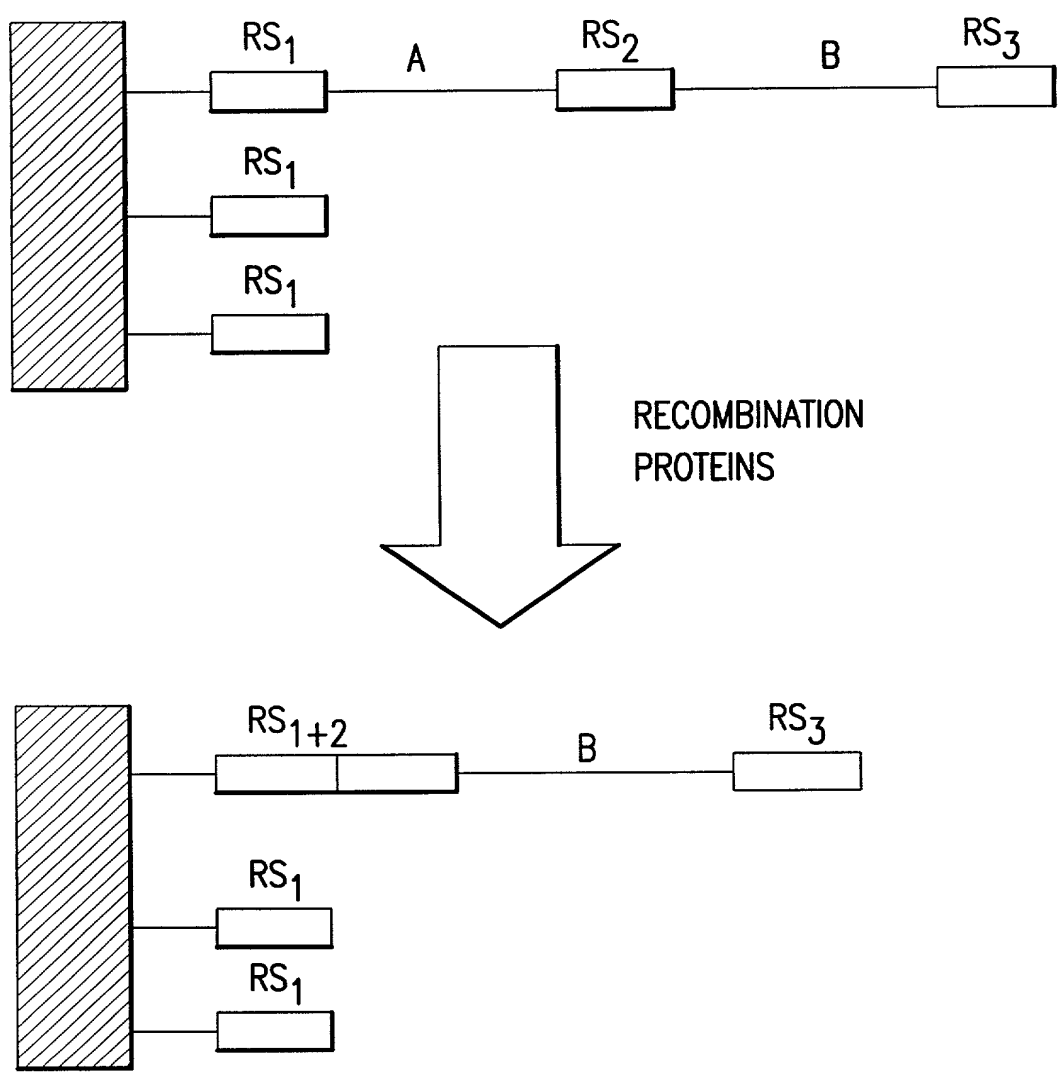


FIG.12

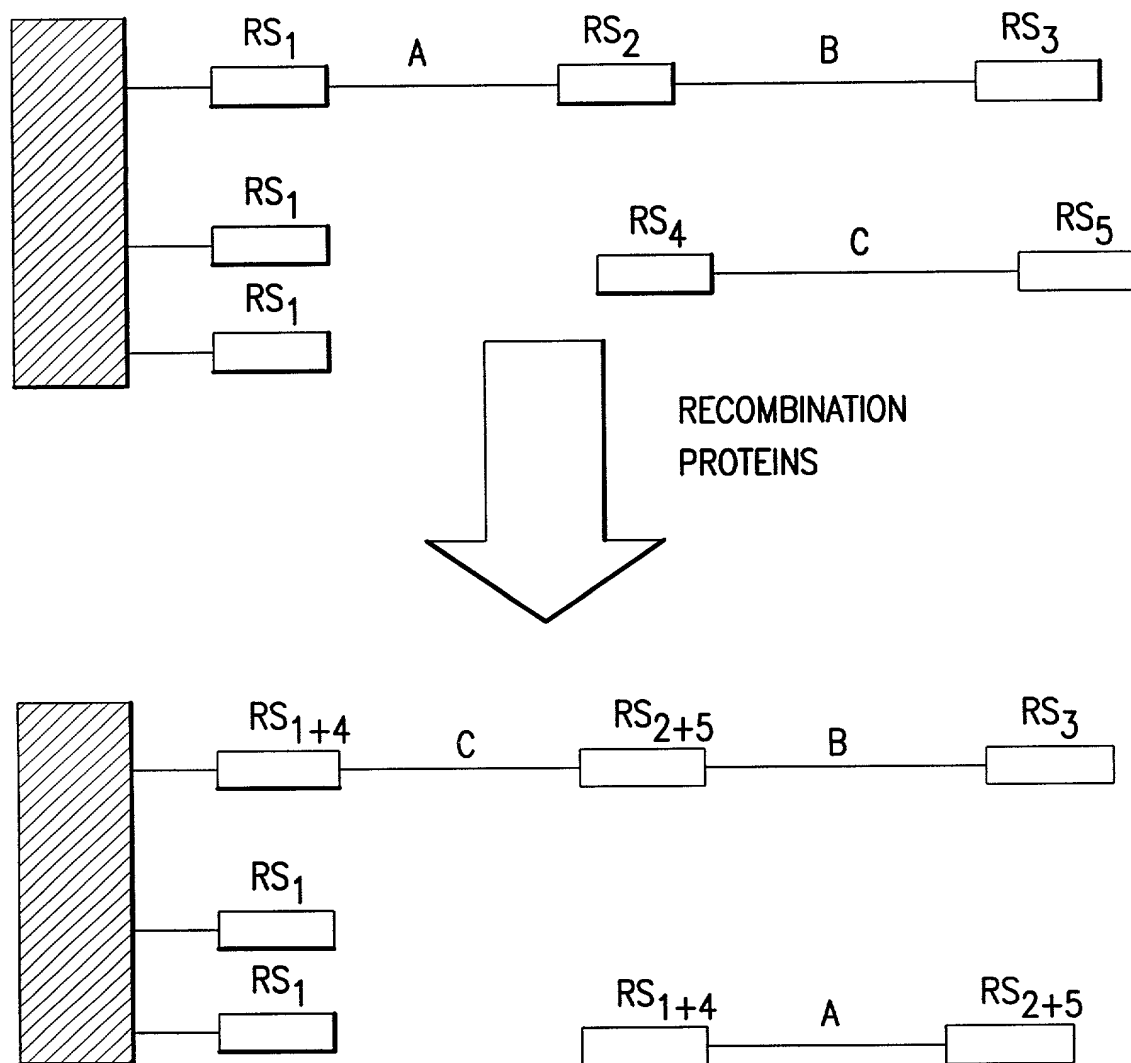


FIG.13

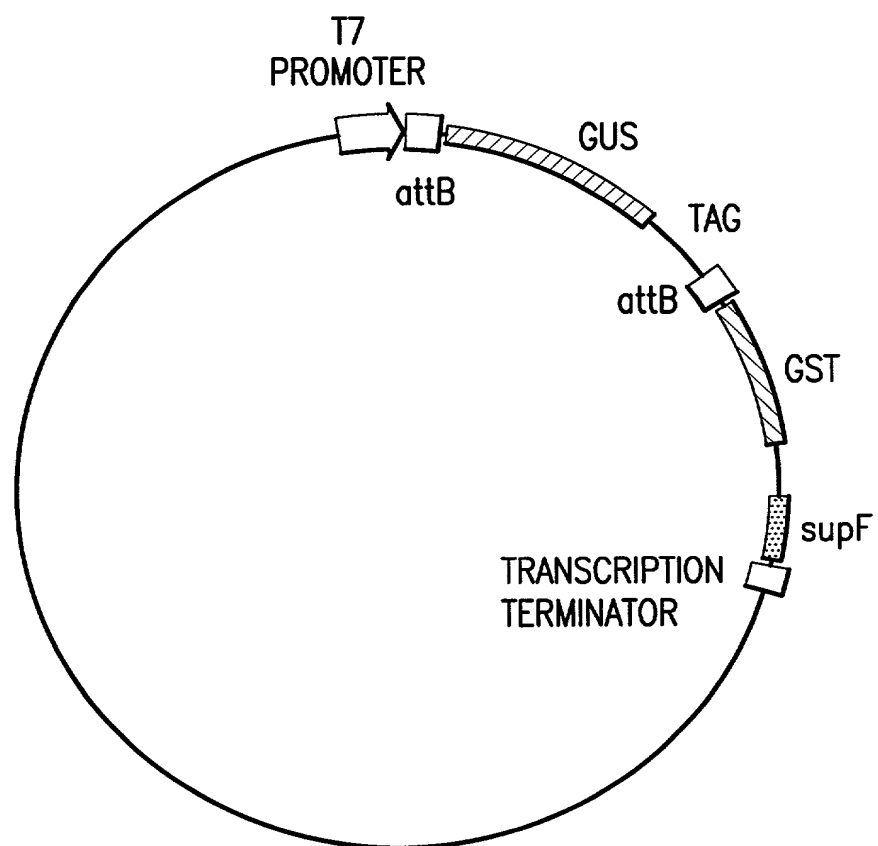


FIG.14A

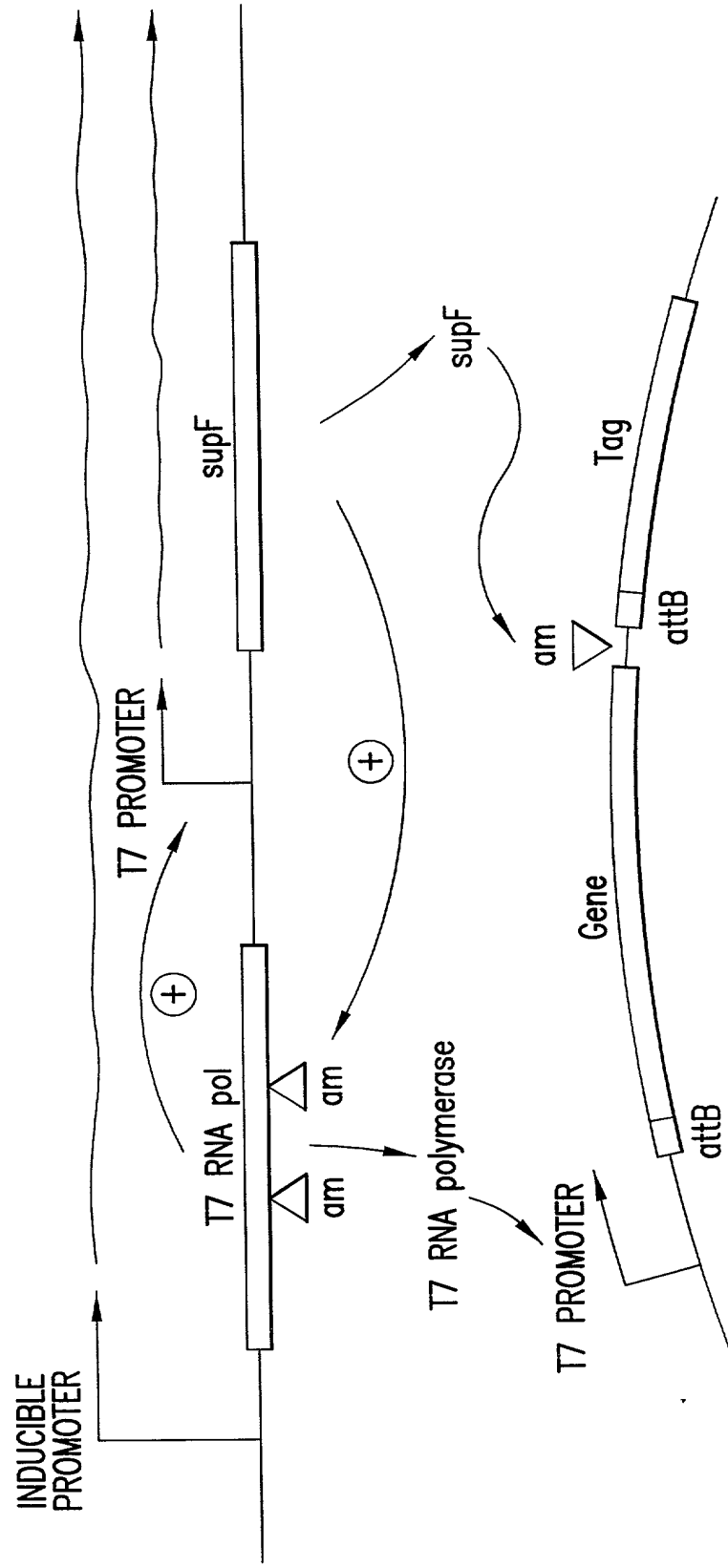


FIG.14B

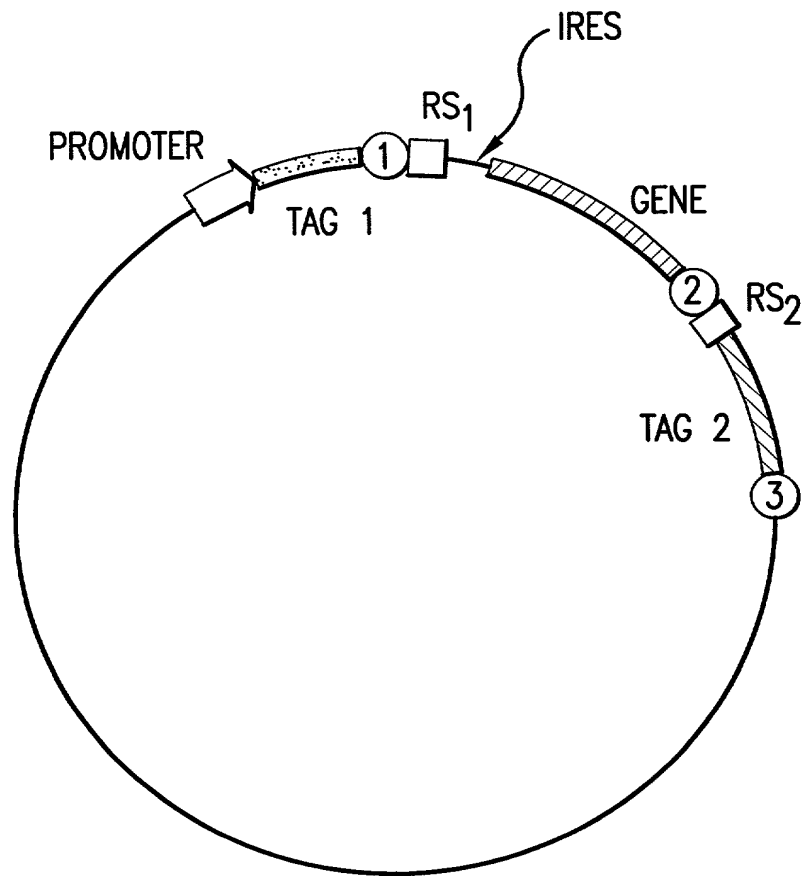


FIG.15



FIGURE 16

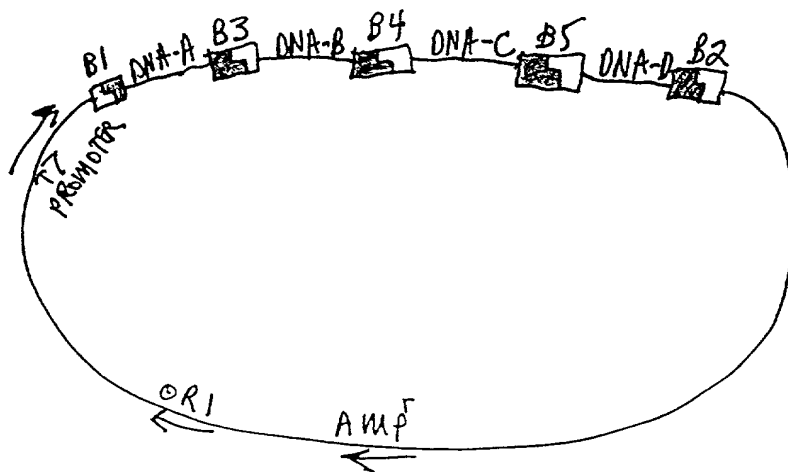
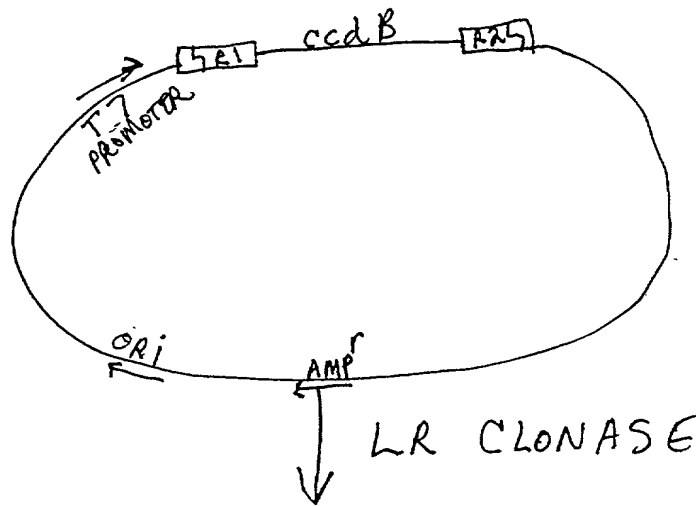
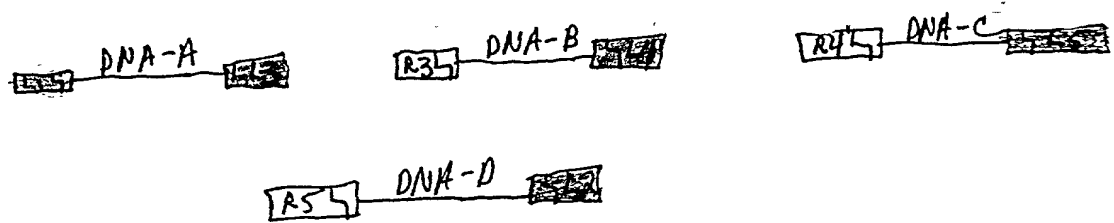


FIGURE 17A

# Cloning Light

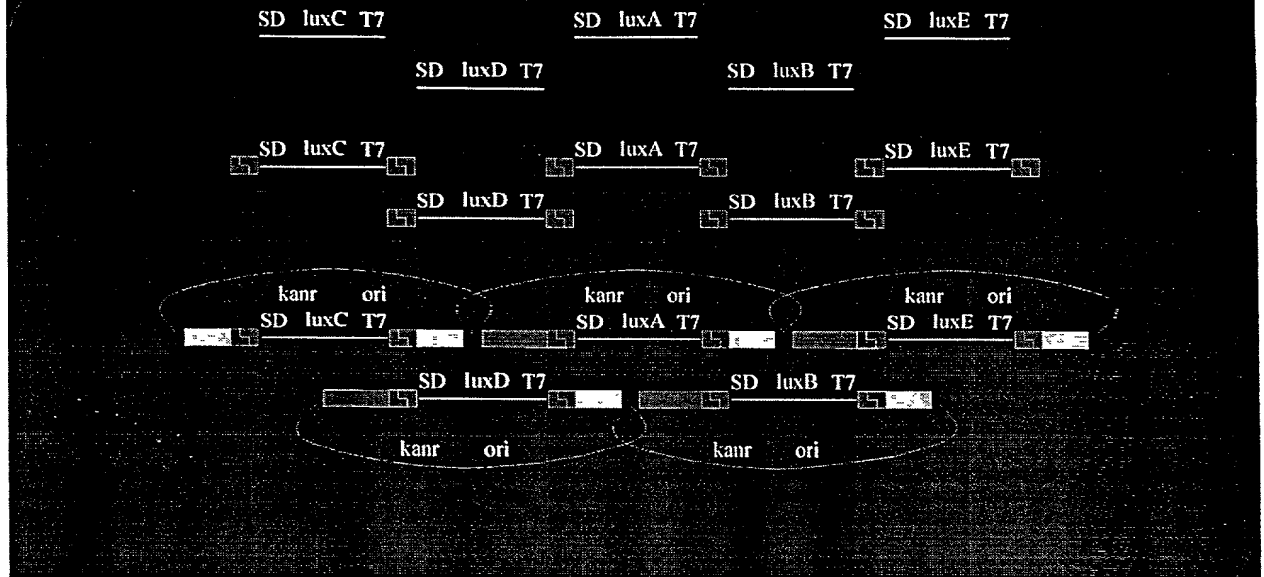
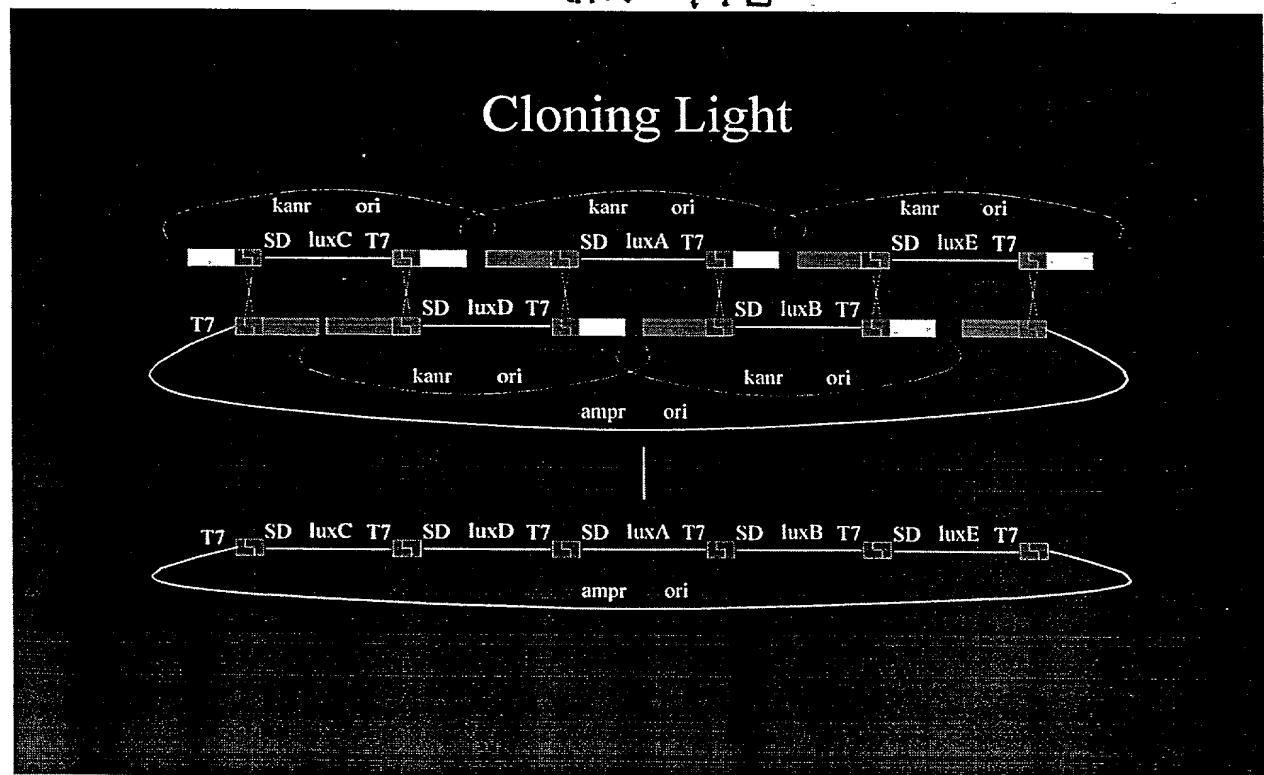


FIGURE 17B

# Cloning Light



# FIGURE 18

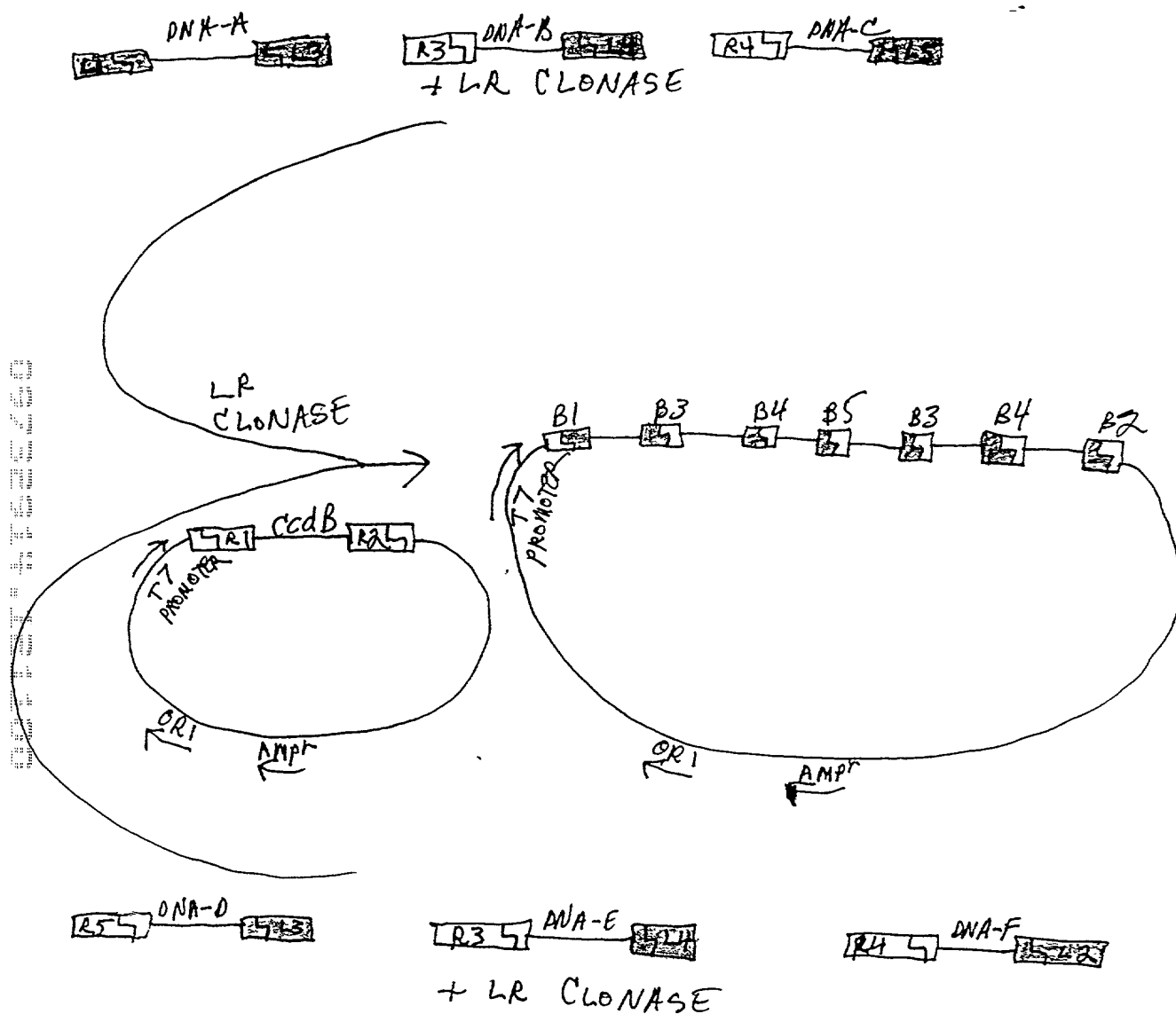


FIGURE 19

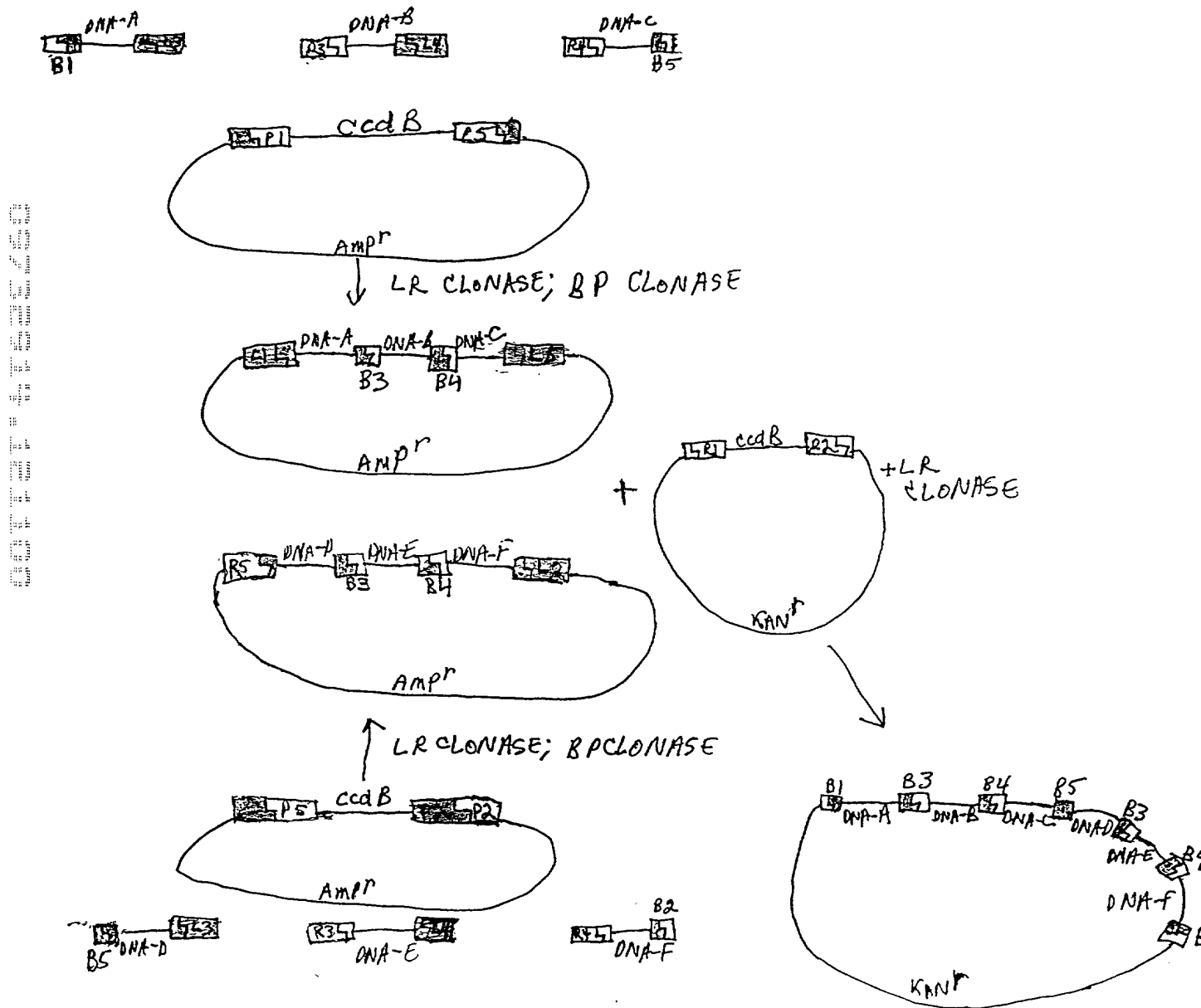


FIGURE 20

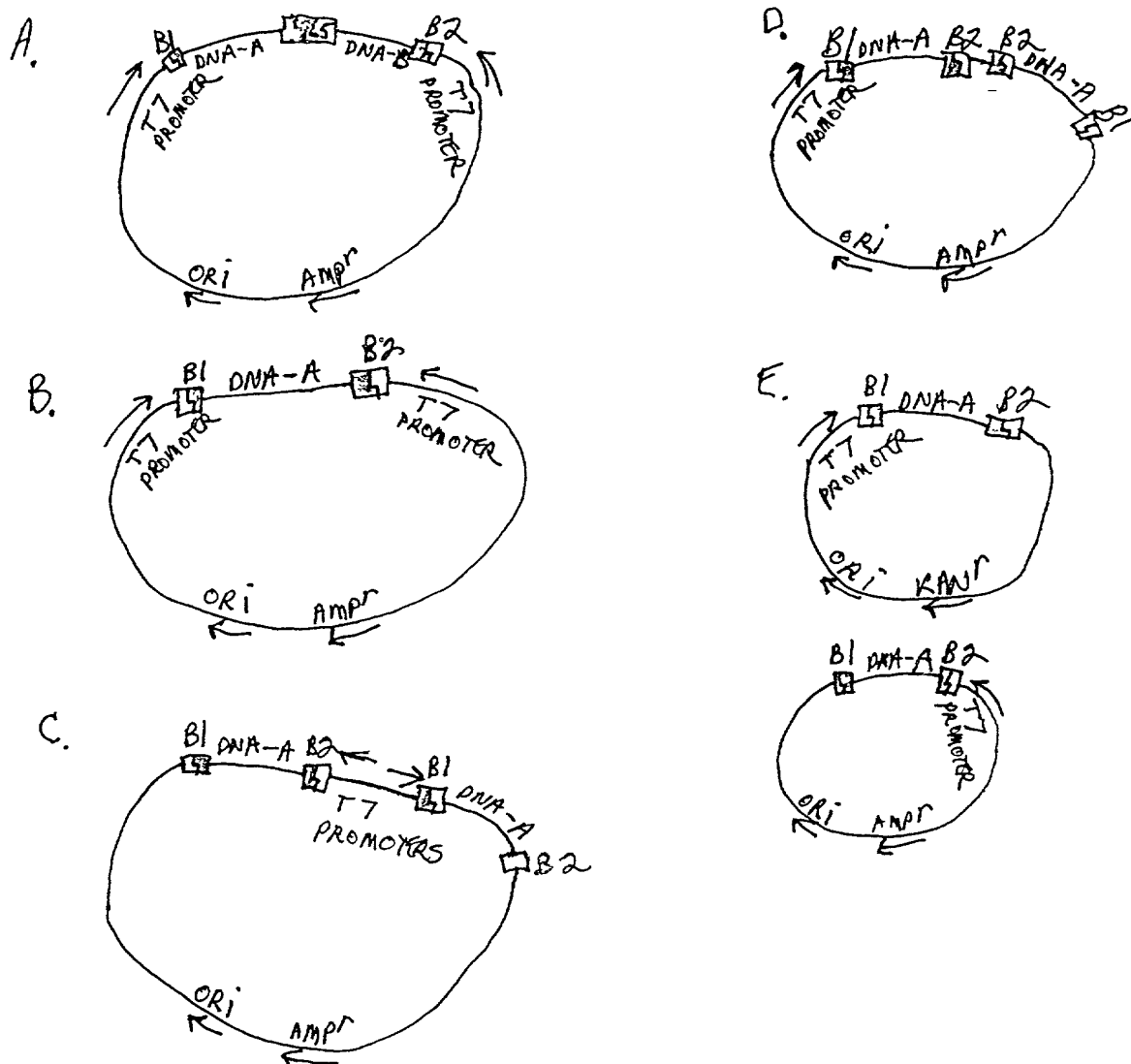


FIGURE 21

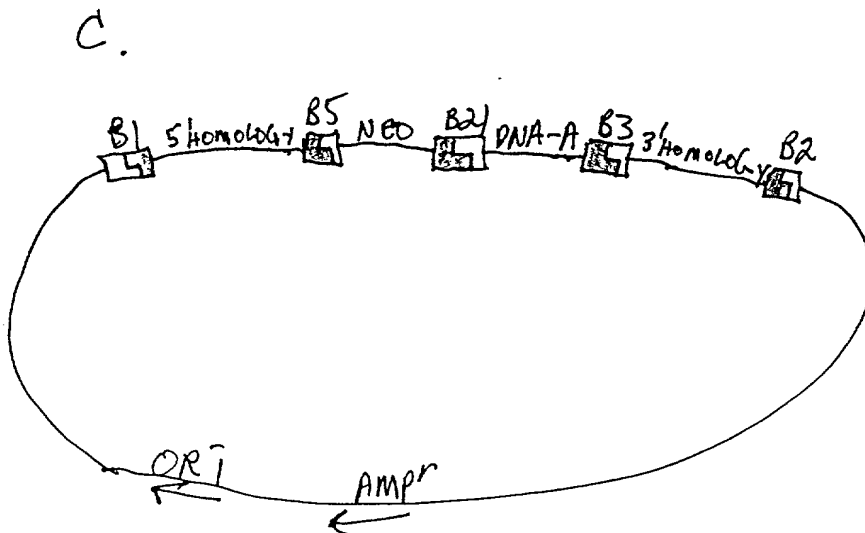
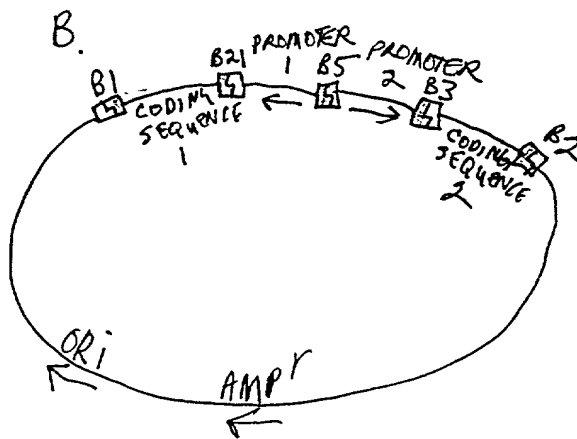
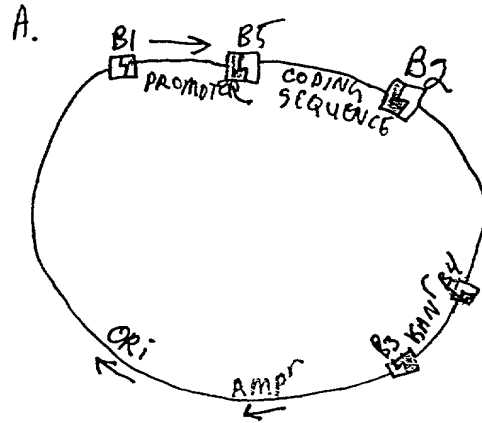


FIGURE 22A

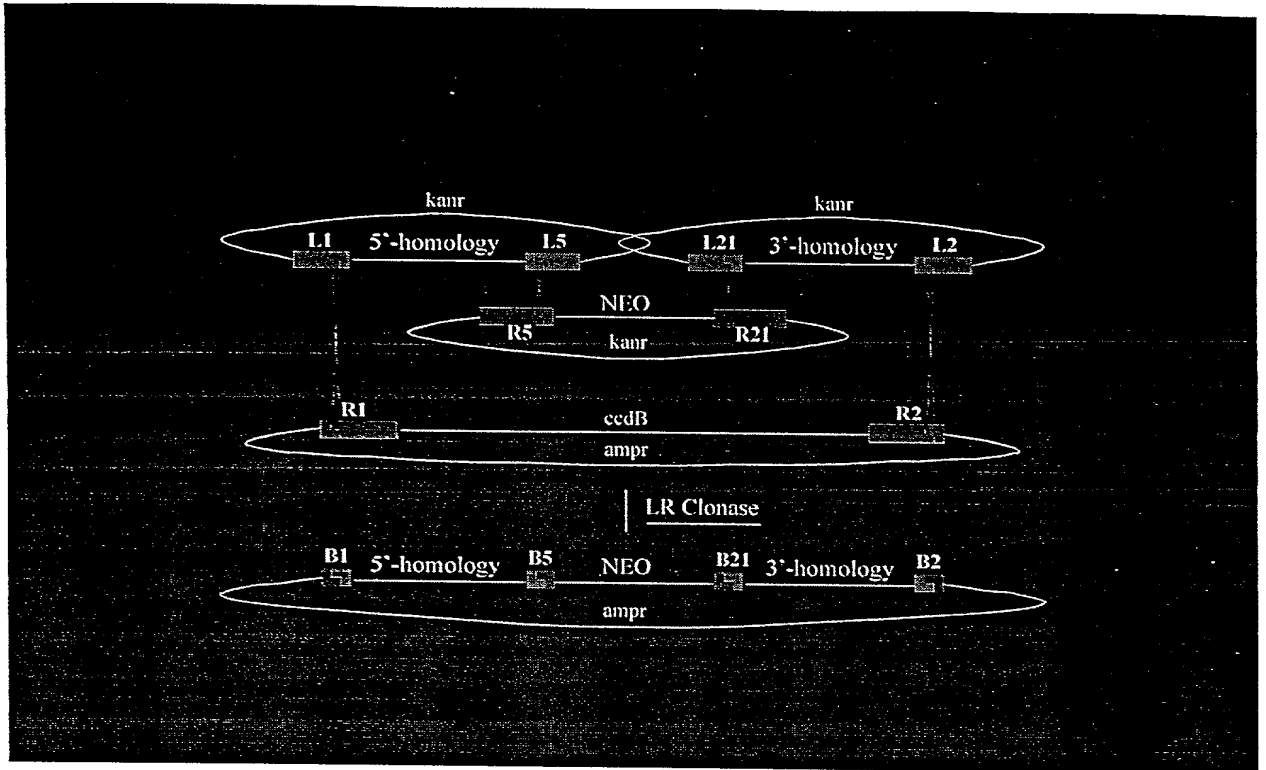
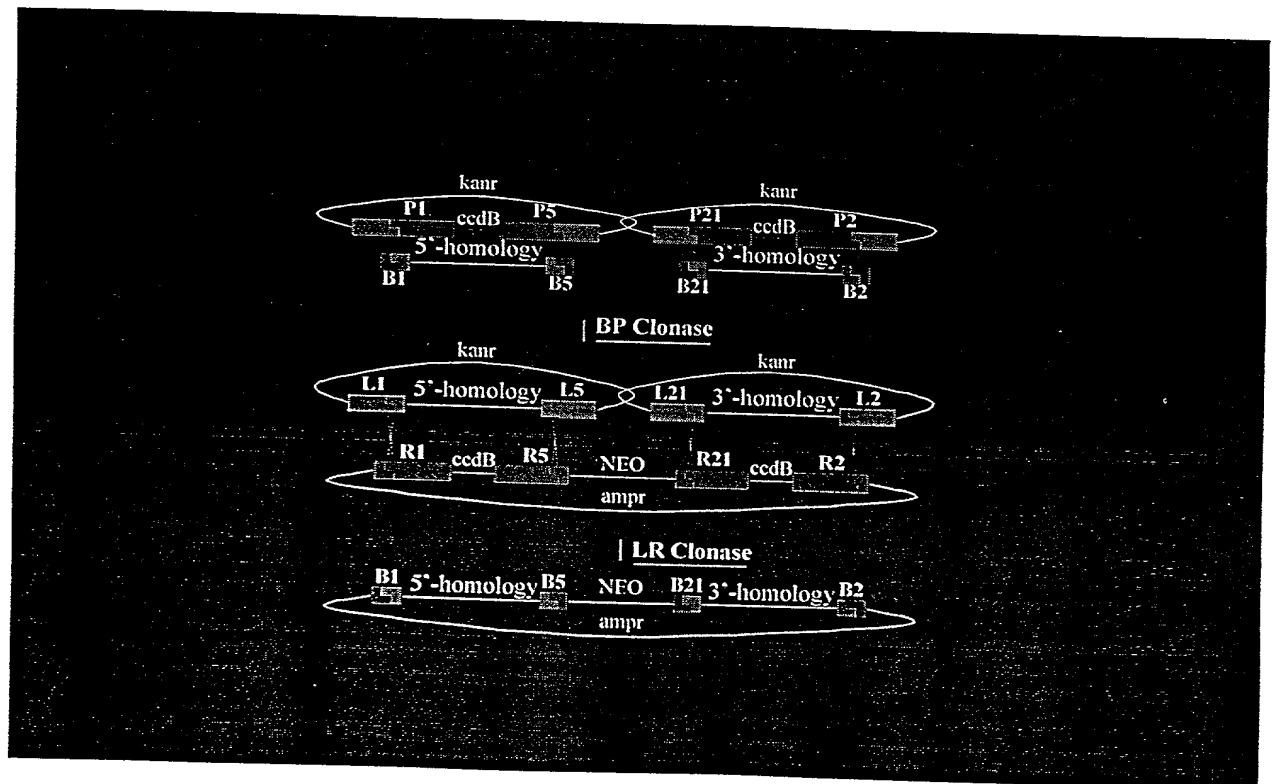
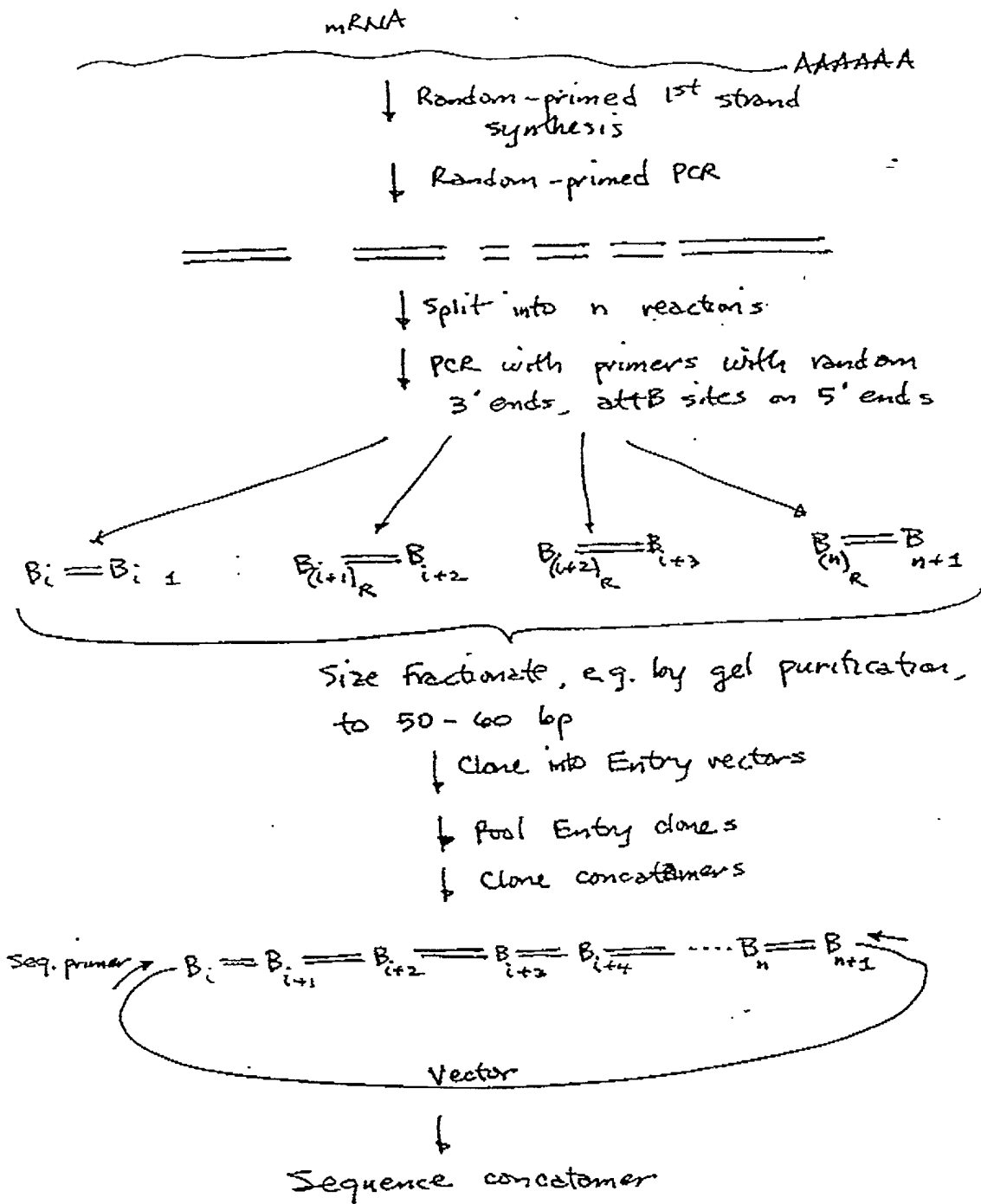


FIGURE 22B



# FIGURE 23





## FIGURE 24A

<i>attB0</i>	AGCCTGCTTTT <u>TTTATACT</u> AACTTGAGC (SEQ ID NO:1) TCGGACGAAAAAATATGATTGAACTCG
<i>attP0</i>	G TTCAGCTTTT <u>TTTATACT</u> AAGTTGGCA (SEQ ID NO:2) CAAGTCGAAAAAATATGATTCAACCGT
<i>attL0</i>	AGCCTGCTTTT <u>TTTATACT</u> AAGTTGGCA (SEQ ID NO:3) TCGGACGAAAAAATATGATTCAACCGT
<i>attR0</i>	G TTCAGCTTTT <u>TTTATACT</u> AACTTGAGC (SEQ ID NO:4) CAAGTCGAAAAAATATGATTGAACTCG
<hr/>	
<i>attB1</i>	AGCCTGCTTTT <u>TTTGTAC</u> AAACTTGT (SEQ ID NO:5) TCGGACGAAAAAATATGTTTGAACA
<i>attP1</i>	G TTCAGCTTTT <u>TTTGTAC</u> AAAGTTGGCA (SEQ ID NO:6) CAAGTCGAAAAAACATGTTTCAACCGT
<i>attL1</i>	AGCCTGCTTTT <u>TTTGTAC</u> AAAGTTGGCA (SEQ ID NO:7) TCGGACGAAAAAACATGTTTCAACCGT
<i>attR1</i>	G TTCAGCTTTT <u>TTTGTAC</u> AAACTTGT (SEQ ID NO:8) CAAGTCGAAAAAACATGTTTGAACA
<hr/>	
<i>attB2</i>	ACCCAGCTTTT <u>CTTGTAC</u> AAAGTGGT (SEQ ID NO:9) TGGGTCGAAAGAATATGTTTCACCA
<i>attP2</i>	G TTCAGCTTTT <u>CTTGTAC</u> AAAGTTGGCA (SEQ ID NO:10) CAAGTCGAAAGAACATGTTTCAACCGT
<i>attL2</i>	ACCCAGCTTTT <u>CTTGTAC</u> AAAGTTGGCA (SEQ ID NO:11) TGGGTCGAAAGAACATGTTTCAACCGT
<i>attR2</i>	G TTCAGCTTTT <u>CTTGTAC</u> AAAGTGGT (SEQ ID NO:12) CAAGTCGAAAGAACATGTTTGACCA
<hr/>	
<i>attB5</i>	CAACTTT <u>ATTATAC</u> AAAGTTGT (SEQ ID NO:13) GTTGAAATAATATGTTTCAACA
<i>attP5</i>	G TTCAACTTTT <u>ATTATAC</u> AAAGTTGGCA (SEQ ID NO:14) CAAGTTGAAATAATATGTTTCAACCGT

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## FIGURE 24B

*attL5* CAACTTTTATTATACAAAGTTGGCA (SEQ ID NO:15)  
GTTGAAATAATATGTTTCAACCGT

*attR5* GTTCAACTTTTATTATACAAAGTTGT (SEQ ID NO:16)  
CAAGTTGAAATAATATGTTTCAACA

---

*attB11* CAACTTTTTCTATACAAAGTTGT (SEQ ID NO:17)  
GTTGAAAAGATATGTTTCAACA

*attP11* GTTCAACTTTTTCTATACAAAGTTGGCA (SEQ ID NO:18)  
CAAGTTGAAAAGATATGTTTCAACCGT

*attL11* CAACTTTTTCTATACAAAGTTGGCA (SEQ ID NO:19)  
GTTGAAAAGATATGTTTCAACCGT

*attR11* GTTCAACTTTTTCTATACAAAGTTGT (SEQ ID NO:20)  
CAAGTTGAAAAGATATGTTTCAACA

---

*attB17* CAACTTTTTGTATACAAAGTTGT (SEQ ID NO:21)  
GTTGAAAACATATGTTTCAACA

*attP17* GTTCAACTTTTTGTATACAAAGTTGGCA (SEQ ID NO:22)  
CAAGTTGAAAACATATGTTTCAACCGT

*attL17* CAACTTTTTGTATACAAAGTTGGCA (SEQ ID NO:23)  
GTTGAAAACATATGTTTCAACCGT

*attR17* GTTCAACTTTTTGTATACAAAGTTGT (SEQ ID NO:24)  
CAAGTTGAAAACATATGTTTCAACA

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*attB19* CAACTTTTTTCGTACAAAGTTGT (SEQ ID NO:25)  
GTTGAAAAAGCATGTTTCAACA

*attP19* GTTCAACTTTTTTCGTACAAAGTTGGCA (SEQ ID NO:26)  
CAAGTTGAAAAAGCATGTTTCAACCGT

*attL19* CAACTTTTTTCGTACAAAGTTGGCA (SEQ ID NO:27)  
GTTGAAAAAGCATGTTTCAACCGT

*attR19* GTTCAACTTTTTTCGTACAAAGTTGT (SEQ ID NO:28)  
CAAGTTGAAAAAGCATGTTTCAACA

## FIGURE 24C

<i>attB20</i>	CAACTTTT <u>TTGGTAC</u> AAAGTTGT (SEQ ID NO:29) GTTGAAAA <u>AACCATG</u> TTTCAACA
<i>attP20</i>	GTTCAACTTTT <u>TTGGTAC</u> AAAGTTGGCA (SEQ ID NO:30) CAAGTTGAAAA <u>AACCATG</u> TTTCAACCGT
<i>attL20</i>	CAACTTTT <u>TTGGTAC</u> AAAGTTGGCA (SEQ ID NO:31) GTTGAAAA <u>AACCATG</u> TTTCAACCGT
<i>attR20</i>	GTTCAACTTTT <u>TTGGTAC</u> AAAGTTGT (SEQ ID NO:32) CAAGTTGAAAA <u>AACCATG</u> TTTCAACA

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<i>attB21</i>	CAACTTTT <u>TAATAC</u> AAAGTTGT (SEQ ID NO:33) GTTGAAAA <u>AATTATG</u> TTTCAACA
<i>attP21</i>	GTTCAACTTTT <u>TAATAC</u> AAAGTTGGCA (SEQ ID NO:34) CAAGTTGAAAA <u>AATTATG</u> TTTCAACCGT
<i>attL21</i>	CAACTTTT <u>TAATAC</u> AAAGTTGGCA (SEQ ID NO:35) GTTGAAAA <u>AATTATG</u> TTTCAACCGT
<i>attR21</i>	GTTCAACTTTT <u>TAATAC</u> AAAGTTGT (SEQ ID NO:36) CAAGTTGAAAA <u>AATTATG</u> TTTCAACA

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FIGURE 25A

## Vector Assembly Using Modular Vector Element Entry Clones

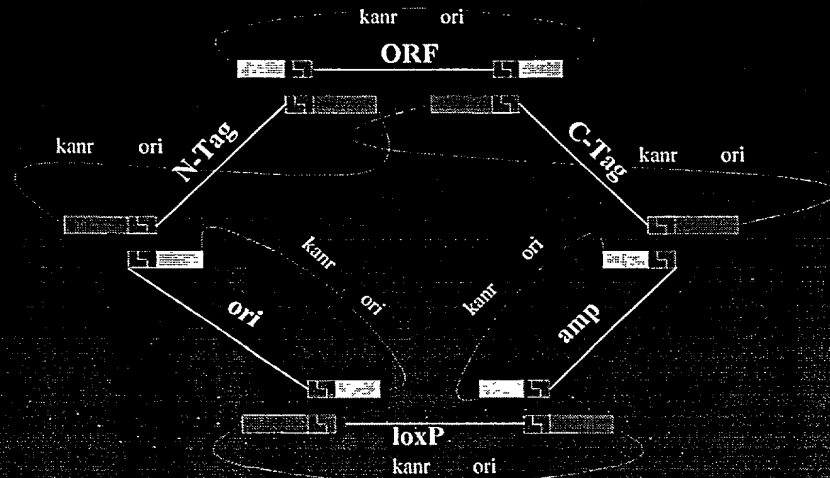


FIGURE 25B

## Vector Assembly Using Modular Vector Element Entry Clones

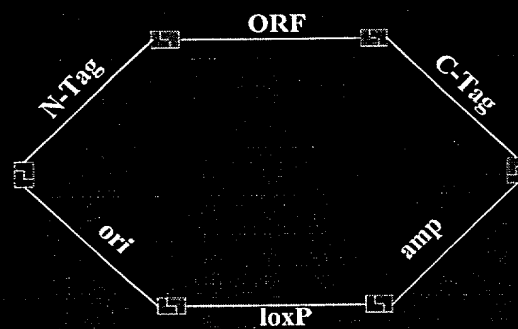


FIGURE 26 A

# Construction of attP Plasmids

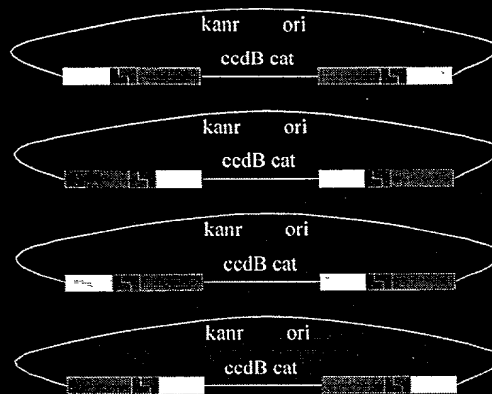
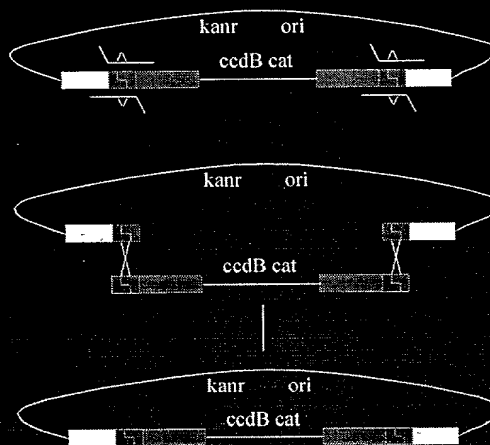
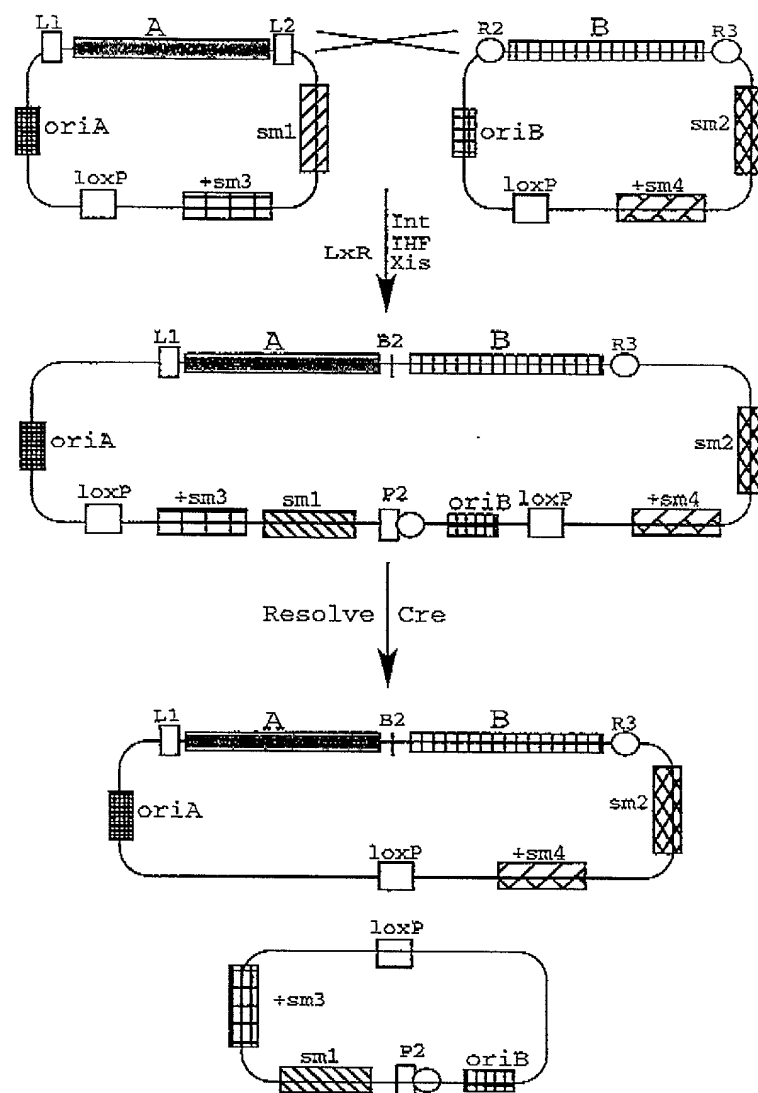


FIGURE 26 B

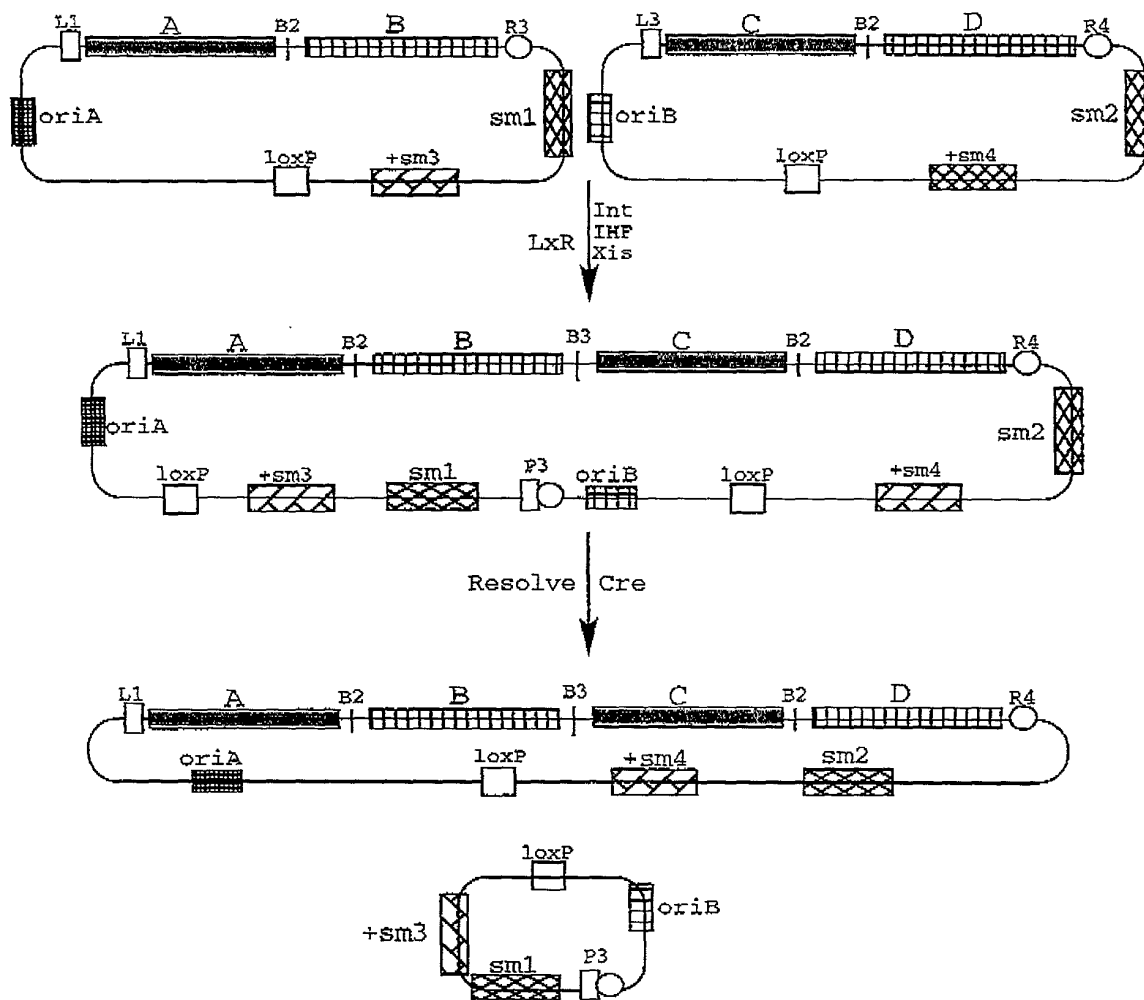
# Construction of attP Plasmids





Transform host that will support replication of *oriA* but not *oriB* and moreover, is sensitive to *+sm3* but resistant to *+sm4*.

FIGURE 27A



Transform host that will support replication of *oriA* but not *oriB* and moreover, is sensitive to +sm3 but resistant to +sm4.

FIGURE 27B